WHAT IS CLAIMED IS:

- 1. A composition, comprising:
 - a) an epoxy composition comprising the reaction product of:
 - i) an epoxy component, and
 - ii) an anhydride component;
 - b) an antioxidant material; and
- c) a visible light-emitting phosphor material substantially uniformly distributed throughout said composition.
- 2. A composition as in claim 1, wherein the epoxy component comprises epoxy monomers within structures I and II represented as:

where X is present at least once on structure I and is selected from the group consisting of H and D_nA provided at least one of X is D_nA , where n can range from 0 to 1, where D can be attached to the ring and can be selected from the group consisting of O, S, and NH and A is attached to D, if D is present, or to the ring if D is not present, and is represented by structure III:

$$E-CH-CH_2-CH-R$$
(III)

where E is selected from the group consisting of H, alkyl, alkenyl, alkynyl, or alkoxy groups which may be linear, branched, or cyclic, or aryl groups, having from 1 to about 20 carbon atoms, with or without substitution by halogen, silicon, hydroxy, nitrile, ester, amide, or sulfate;

where R is selected from the group consisting of H, alkyl, alkenyl, alkynyl, or alkoxy groups which may be linear, branched, or cyclic, or aryl groups, having from 1 to about 20 carbon atoms, with or without substitution by a member selected from the group consisting of halogen, hydroxy, nitrile, ester, amide, and sulfate; and

 X_1 is present at least once on structure II and is a member selected from the group consisting of H and O=CD_nA, provided that at least one X_1 is O=CD_nA.

3. A composition as in claim 1, wherein said epoxy component comprises materials within the structure represented by:

$$\begin{array}{cccc}
D & A & D \\
N & N & D \\
A & D & A
\end{array}$$

$$\begin{array}{cccc}
(IV)
\end{array}$$

where D is selected from the group consisting of O, S, and NH, and A is represented by the structure:

$$E-CH-CH_2-CH-R$$
(III)

where E is selected from H, alkyl, alkenyl, alkynyl, alkoxy groups which may be linear, branched, or cyclic, and aryl groups, having from 1 to 20 carbon atoms with or without substitution by halogen, silicon, hydroxy, nitrile, ester, amide, or sulfate, and

where R is selected from H, alkyl, alkenyl, alkynyl, alkoxy groups which may be linear, branched, or cyclic, and aryl groups, having from 1 to about 20 carbon atoms, with or without substitution by halogen, silicon, hydroxy, nitrile, ester, amide, or sulfate.

4. A composition as in claim 1, wherein the epoxy component comprises materials within the structure represented by:

5. A composition as in claim 1, wherein the epoxy component comprises materials within the structure represented by:

6. A composition as in claim 1, wherein the epoxy component comprises materials within the structure represented by:

$$\begin{array}{c} \text{CH}_2\text{CH}-\text{CH}_2 \\ \text{O} \\ \text{N} \\ \text{O} \\ \text{CH}_2\text{-CHCH}_2 \\ \text{O} \\ \text{CH}_2\text{-CHCH}_2 \\ \text{O} \\ \end{array}$$

(VII)

- 7. A composition as in claim 1, wherein said epoxy component comprises triglycidyl isocyanurate.
- 8. A composition as in claim 1, wherein said anhydride component comprises a cycloaliphatic anhydride.
- 9. A composition as in claim 8, wherein said anhydride component comprises methyl hexahydrophthalic anhydride.
- 10. A composition as in claim 1, wherein said epoxy composition further comprises a polyol for promoting reaction of said epoxy component and said anhydride component.
- 11. A composition as in claim 10, wherein said polyol is selected from the group consisting of glycerol, trimethylol propane, ethylene glycol, diethylene glycol, propylene glycol, dipropylene glycol, neopentyl glycol, and mixtures thereof.
- 12. A composition as in claim 1, wherein said antioxidant material comprises an alkyl salt of propionic acid.
- 13. A composition as in claim 12, wherein said antioxidant material comprises a thiodialkylpropionate.
- 14. A composition as in claim 13, wherein said antioxidant material comprises a thiodiethylenepropionate.
- 15. A composition as in claim 14, wherein said antioxidant material comprises thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate].
- 16. A composition as in claim 1, wherein said phosphor material is capable of converting ultraviolet and blue light into visible white light.

- 17. A composition as in claim 1, wherein said phosphor comprises yttrium aluminum garnet.
- 18. A composition as in claim 1, wherein said epoxy component comprises from about 20 weight percent to about 75 weight percent of said composition based on the total weight of the composition.
- 19. A composition as in claim 1, wherein said anhydride component comprises from about 20 weight percent to about 75 weight percent of said composition based on the total weight of the composition.
- 20. A composition as in claim 1, wherein said antioxidant material comprises from about 0.01 weight percent to about 5 weight percent of said composition based on the total weight of the composition.
- 21. A composition as in claim 1, wherein said phosphor material comprises from about 0.5 weight percent to about 35 weight percent of said composition based on the total weight of the composition.
 - 22. A molding compound comprising the composition of claim 1.
 - 23. A composition, comprising:
 - a) an epoxy composition comprising the reaction product of:
 - i) an epoxy component, and
 - ii) an anhydride component; and
 - b) an antioxidant material.
- 24. A composition as in claim 23, wherein said antioxidant material comprises an alkyl salt of propionic acid.
- 25. A composition as in claim 24, wherein said antioxidant material comprises thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate].
 - 26. A molding compound comprising the composition of claim 23.

- 27. An encapsulant material for electronic components comprising a molding compound comprising a reaction product of a partially cured epoxy component and an anhydride component having an antioxidant material and, optionally, a phosphor material substantially uniformly distributed therethrough.
- 28. An encapsulant material as in claim 27, wherein said antioxidant material comprises an alkyl salt of propionic acid.
- 29. An encapsulant material as in claim 28, wherein said antioxidant material comprises a thiodialkylpropionate.
- 30. An encapsulant material as in claim 29, wherein said antioxidant material comprises thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate].
- 31. An encapsulant material as in claim 27, wherein the epoxy component comprises epoxy monomers within structures I and II represented as:

where X is present at least once on structure I and is selected from the group consisting of H and D_nA provided that at least one X is D_nA , where n can range from 0 to 1, where D can be attached to the ring and can be selected from the group consisting of O, S, and NH and A is attached to D, if D is present, or to the ring if D is not present, and is represented by structure III:

where E is selected from the group consisting of H, alkyl, alkenyl, alkynyl, or alkoxy groups which may be linear, branched, or cyclic, or aryl groups, having from 1 to about 20 carbon atoms, with or without substitution by halogen, silicon, hydroxy, nitrile, ester, amide, or sulfate;

where R is selected from the group consisting of H, alkyl, alkenyl, alkynyl, or alkoxy groups which may be linear, branched, or cyclic, or aryl groups, having from 1 to about 20 carbon atoms, with or without substitution by a member selected from the group consisting of halogen, hydroxy, nitrile, ester, amide, and sulfate; and

 X_1 is present at least once on structure II and is a member selected from the group consisting of H and O=CD_nA, provided that at least one X_1 is O=CD_nA.

32. An encapsulant material as claimed in claim 27, wherein said epoxy component comprises materials within the structure represented by:

wherein D is selected from the group consisting of O, S, and NH, and A is represented by the structure:

(III)

where E is selected from H, alkyl, alkenyl, alkynyl, alkoxy groups which may be linear, branched, or cyclic, and aryl groups, having from 1 to 20 carbon atoms with or without substitution by halogen, silicon, hydroxy, nitrile, ester, amide, or sulfate, and

where R is selected from H, alkyl, alkenyl, alkynyl, alkoxy groups which may be linear, branched, or cyclic, and aryl groups, having from 1 to about 20 carbon atoms, with or without substitution by halogen, silicon, hydroxy, nitrile, ester, amide, or sulfate.

33. A method of preparing a molding compound, comprising:

- a) providing an epoxy composition;
- b) mixing an antioxidant material with said epoxy composition to provide a homogeneous mixture;
- c) increasing the viscosity of said homogeneous mixture to form a pre-reacted intermediate; and
- d) partially curing said epoxy composition of said pre-reacted intermediate, thereby forming said molding compound.

34. A method as in claim 33, further comprising:

mixing a visible light-emitting phosphor material with said epoxy composition to provide a homogeneous mixture with said phosphor material suspended within said epoxy composition; and

increasing the viscosity of said homogeneous mixture while maintaining said phosphor material suspended within said epoxy composition to form the pre-reacted intermediate.

35. A method of encapsulating an optoelectronic device, comprising:

- a) providing an optoelectronic device;
- b) providing a molding compound comprising a partially cured epoxy composition including an antioxidant material;
- c) encapsulating said optoelectronic device with said molding compound; and
 - d) fully curing said epoxy composition.

- 36. A method as in claim 35, wherein said molding compound further comprises a light-emitting phosphor material homogeneously mixed therethrough.
- 37. A method as in claim 36, wherein said optoelectronic device is a light-emitting diode.
- 38. An optoelectronic device comprising a light-emitting diode having an encapsulant surrounding said light-emitting diode, said encapsulant comprising a reaction product of a cured epoxy composition including an antioxidant material and, optionally, a phosphor material.